



Technical Assistance Report

Project Number: 41435
December 2007

Kingdom of Cambodia: Preparing the Tonle Sap Poverty Reduction and Smallholder Development Project (Cofinanced by the Government of Finland)

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 26 October 2007)

Currency Unit	-	riel (KR)
KR1.00	=	\$0.000245
\$1.00	=	KR4,081

ABBREVIATIONS

ADB	-	Asian Development Bank
EA	-	Executing Agency
ICT	-	Information and Communications Technology
IFAD	-	International Fund for Agricultural Development
PPTA	-	project preparatory technical assistance
SME	-	small- or medium-sized enterprise
SNEC	-	Supreme National Economic Council
TA	-	technical assistance
TSI	-	Tonle Sap Initiative
UNCTAD	-	United Nations Conference on Trade and Development

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	-	Targeted intervention
Sector	-	Agriculture and natural resources
Subsectors	-	Agriculture sector development; environment and biodiversity
Themes	-	Sustainable economic growth; inclusive social development; environmental sustainability
Subthemes	-	Developing rural areas; indigenous peoples; natural resources conservation

NOTES

- (i) The fiscal year (FY) of the Government of Cambodia and its agencies ends on 31 December.
- (ii) In this report, "\$" refers to US dollars.

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I. INTRODUCTION

1. During the review of the country strategy and program 2005–2009 for Cambodia, the Government of Cambodia requested the Asian Development Bank (ADB) for technical assistance (TA) to prepare the Tonle Sap Poverty Reduction and Smallholder Development Project.^{1,2} The ADB's TA Fact-Finding Mission visited Cambodia 17–26 October 2007 and reached an understanding with the Government on the impact, outcome, outputs, implementation arrangements, and cost and financing arrangements of the proposed TA.³ The TA is included in ADB's 2008 assistance program for Cambodia.

II. ISSUES

2. **Poverty and Income Disparity.** Despite Cambodia's significant economic growth in recent years, the persistence of rural poverty and growing income disparity between rural and urban areas have become a cause of deep concern for the Government and its development partners. The Government is determined to reverse this trend by realigning its development priorities in the rural areas through the Rectangular Strategy for Growth, Employment, Equity, and Efficiency announced by Prime Minister Samdech Hun Sen in 2004. Enhancement of the agriculture sector constitutes the first "growth rectangle," which covers (i) improved productivity and diversification of agriculture, (ii) land reform and clearing of mines, (iii) fisheries reform, and (iv) forestry reform. The Government's Supreme National Economic Council (SNEC) is developing an action plan for the agriculture and natural resources sector under the Rectangular Strategy. To accelerate growth and development in the rural areas, the Government urgently needs help to analyze and address a set of policy, technology, institution, and market-related issues, and to design and implement innovative projects that can be integrated with the opportunities created by other sectoral developments. The Government has also announced an agriculture and water sector strategy, based on the work done by the technical working group on agriculture and water.⁴

3. **Low Factor Productivity.** The Tonle Sap Basin, home to a third of the country's population, has one of the country's highest poverty rates. One of the main causes of poverty in this and other rural regions—and for the growing income gap between urban areas and the countryside—is lagging productivity in the use of land, water, labor, and capital. Poor management of resources is a major contributor, particularly in the Tonle Sap Basin. The absence of proper land titles and tenurial security, together with complexities created by social economic land concessions have resulted in underutilization and underinvestment in land development and land preservation. Inadequate access to assets, technology, and quality inputs also contributes to low factor productivity, as does gender discrimination. Labor productivity is depressed by a shortage of skills and training, and by poor health, nutrition, and sanitation. Insufficient access to capital, and low investment in social and physical infrastructure, compound the situation. Productivity of capital is constrained by low technical and management skills, which also affect land and water productivity. Weak technical and institutional capacities across public, private, and civil society agencies and organizations, together with inadequate access to rural finance, dampen the prospects for factor-productivity growth.

¹ ADB. 2007. *Country Strategy and Program Midterm Review 2005–2009: Kingdom of Cambodia*. Manila.

² The TA first appeared in *ADB Business Opportunities* on 5 November 2007.

³ It was also agreed that a complementary advisory technical assistance will be needed for pilot technology demonstration and ICT application for growth and diversification of agriculture through improved access to technology and market.

⁴ The technical working group on agriculture and water was created in September 2003 through an agreement between the Government and development partners to play a supportive and collaborative role in assisting the Government to progress agricultural development in Cambodia.

4. **Biosecurity of Agriculture and Natural Resources.** Biosecurity for agriculture and food production is a critical factor for growth and development of Cambodia's agriculture. It has three dimensions: threats to biosafety and food safety; loss of environmental sustainability; and loss of biodiversity. Cambodia does not have the technical and institutional capacity needed to manage national and international food safety and quality concerns—a shortcoming that stands in the way of expanding and diversifying the agricultural export base. Safety concerns have held back Cambodian fish exports to the European Union. Growth in the livestock sector is constrained by transboundary animal diseases, such as classical swine fever, foot-and-mouth disease, and highly pathogenic avian influenza. Animal mortality and reduced productivity threaten the livelihoods of poor smallholders, and restrict regional and international trade. For Cambodia to gain entry into international markets, effective safety standards have to be institutionalized in the certification of its products. This will also help to protect and preserve animal and plant resources, and to ensure the health of its people. The country is also facing the depletion and degradation of its natural resources, including environmental pollution, pressure on the fishery, forestry, and the Tonle Sap ecosystem, and the loss of plant species and wildlife.

5. **Lack of Access to Information and Communication Technology (ICT).** As a latecomer to technological development, Cambodia can take advantage of the latest advances in ICT. ADB recognizes the importance of ICT in improving the access of the rural population—and of the rural poor, in particular—to information, knowledge, and services for rural and agricultural development. The Government has given ICT a high priority under its Rectangular Strategy, where it is grouped under Rectangle 3 with transport, water, and energy. Given the current low level of agricultural productivity, faster growth will call for rapid technological advancement, which cannot occur without extensive use of ICT. The development of small- and medium-sized enterprises (SMEs), in particular, and the strengthening of their trade links, will depend very much on accelerating the use of ICT in rural areas. Investment in hardware and software capacity, skills and training, power, and network connectivity, are all critical to achieving that goal. Cambodia has made some headway with mobile phone technology but most ICT infrastructure is concentrated around the capital city of Phnom Penh. The Government established the National Information and Communication Technology Development Authority in 2000 to coordinate ICT policy development and application. Future progress is likely to be hampered, however, by poor technical skills and institutional weaknesses at the central, provincial, and local levels, and by a lack of credit support and incentives for the private sector and nongovernment organizations. More action is also warranted to develop and streamline the legal and regulatory framework.

6. **Inadequate Market Development and Access.** This is a perennial problem in all emerging developing countries, and Cambodia is no exception. It undercuts the Government's effort to move towards market- and business-driven agriculture. Diversifying agriculture and orienting it towards exports cannot be achieved with Cambodia's current low levels of comparative and competitive advantage, and lack of regional integration. Improving market linkages is critical to making SMEs more trade-oriented by exploring beyond local markets and penetrating the foreign markets where there is demand for their products. Further problems arise from fragmented markets, poor infrastructure, uneven flow of information, and the rural–urban disconnect. In Cambodia, agricultural marketing remains largely local, and the linkages between producers, traders, and consumers are weak. Contract-farming arrangements that are seen as promising models for future agribusiness and agricultural development are still undeveloped, except in few cases, like that of Angkor Kasekam Rongreung, which is a rice contract-farming model. Appropriate legal and institutional guidelines for contract farming arrangements need to be developed to facilitate integration of smallholder farmers with the national and international markets. Poor post-harvest technology for processing, storage, and packaging constrains market expansion and penetration in the same way that bio-insecurity and

limited ICT do. Low private sector participation is another obstacle. It also restricts the growth of alternative employment and livelihood opportunities.

7. The project for poverty reduction and smallholder development will consolidate gains and experiences from earlier ADB interventions in the Tonle Sap Basin under the Tonle Sap Initiative (TSI),⁵ and develop specific ways to foster the growth of factor productivity, promote biosecure agriculture, improve market access, and increase the use of ICT in agricultural and rural development. The TSI focuses on the preservation of the resource base of the basin with the end goal of uplifting the lives of the poor population in the surrounding provinces through social infrastructure development, community livelihood support for alternative income and employment opportunities. The project design will complement and be consistent with the ongoing and planned projects of ADB and other external funding agencies in order to accelerate poverty reduction in the Tonle Sap Basin.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

8. The impact of the Project would be reduction in rural poverty, and improvement in the socioeconomic conditions and quality of life for the poor people in the Tonle Sap Basin. The proposed TA would design a sector project that will (i) enhance the factor productivity in farm, nonfarm, and off-farm activities; (ii) improve access to product and financial markets; (iii) facilitate the use of technology and/or market information through introduction of rural ICT; and (iv) attain biosecure agriculture.

9. The TA's main outcome will be a design for the Project acceptable to the Government that will (i) increase the use and non-use value of natural resources through improved environmental management in utilization of agricultural, flooded-forest, and fishery resources in the Tonle Sap Basin; (ii) accelerate income growth for the rural poor through improved productivity and diversification; (iii) increase participation by the rural poor in the domestic and international product and services markets; and (iv) integrate the rural poor into tourism and ecotourism development through production for the tourist market. The design and monitoring framework for the TA is in Appendix 1.

B. Methodology and Key Activities

10. The TA will be implemented in two parallel parts: (i) analytical studies and review of the experiences of ADB and other development partners in the sector, both in Cambodia as a whole and in the project area, and (ii) project and subprojects design, including social and environmental assessment, financial and economic analysis, and participatory consensus building at the grassroots with all stakeholders. Key tasks will be (i) to assess the overall state of the economy and rural development; (ii) to assess the agriculture and water sectors in the project area; (iii) to analyze poverty and alternative livelihood opportunities in the project area; (iv) to carry out gender analysis to prepare a gender action plan; (v) to prepare an environmental profile of the project area, including resource degradation, pollution, and loss of

⁵ The four ongoing and planned TSI projects—*Tonle Sap Environmental Management Project* (Loan 1939), *Tonle Sap Sustainable Livelihood Project* (Grant 0034/0035), *Tonle Sap Lowland Rural Development Project* (2007), and *Tonle Sap Watershed Management Project* (2008)—have focused on resource management, capacity building, and infrastructure improvement in various agro-ecological and environmental zones of the Tonle Sap Basin, covering (i) fisheries, wildlife, and flooded forest protection; (ii) livelihood improvement; (iii) social and agricultural water management and infrastructure development; and (iv) watershed management. In addition, the incoming Rural e-Development Initiative is expected to support a broad-based intervention aiming at improving ICT policy, environment and capacity, rural communities' access to information and services, local contents and e-application.

biodiversity; (vi) to examine all aspects of market, national, and international links, and supply and value chains; (vii) to review all technical and institutional aspects of biosecure agriculture, with a particular emphasis on food safety and quality control; (viii) to assess the current state of ICT application in agriculture and rural development, and develop an action plan; (ix) to examine the potentials of, and constraints on, smallholder and agribusiness development; (x) to assess institutional, environmental, public-health, and social risks, and formulate measures to ensure adequate safeguards; (xi) to assess the benefits of the proposed project on agricultural productivity, employment, external earnings, the role of women, the livelihood of ethnic minority groups, the environment and public health; (xii) to formulate sector and subsector road maps; (xiii) to examine the performance and capacity of the relevant institutions; (xiv) to prepare a detailed investment project proposal, together with subproject design; and (xv) to estimate financial and economic costs and benefits for the subprojects. The subprojects will specify activities targeted to one or more specific components, and are expected to address the needs of specific target groups.

11. A detailed proposal for an ensuing loan project will be formulated upon TA completion. The project is expected to be implemented in selected communities of Siem Reap, Kampong Thom, and Kampong Cham provinces that are relatively underdeveloped but have potential for growth and diversification. It is expected to reduce poverty among disadvantaged rural residents, and to help smallholders now engaged in mere subsistence activities to develop business enterprises. Special attention will be given to social issues specifically related to gender and ethnic minority groups. An initial poverty and social analysis is in Appendix 2. The project will also aim at reducing public health and environmental risks through (i) resource conservation measures, (ii) pollution control, (iii) improved practices in crop production, (iv) pest management, and (v) improved product processing, including the introduction of organic farming and rural renewable energy.

C. Costs and Financing

12. The total cost of the TA is estimated at the equivalent of \$725,000. The Government has requested ADB to finance the equivalent of \$500,000. ADB proposes to provide \$200,000 equivalent financed on a grant basis by ADB's TA funding program. The balance will be financed by the Government of Finland on a grant basis up to \$300,000, and administered by ADB. The International Fund for Agricultural Development (IFAD) will provide an equivalent of \$150,000 in parallel financing that will support 6 person-months of international consultants, and miscellaneous administration costs. The Government will provide \$75,000 in kind to cover office accommodations, counterpart staff support, facilities for seminars and meetings, other administrative expenses, and part of local transport costs. The Government has been informed that approval of the TA does not commit ADB to finance any ensuing project. A tentative cost table is in Appendix 3.

D. Implementation Arrangements

13. The Supreme National Economic Council (SNEC) will act as the Executing Agency (EA). SNEC is responsible for developing the action plan for agriculture and natural resources under the Government's Rectangular Strategy, and is well-positioned to guide and coordinate the implementation of the TA, which intends to develop a broad-based and innovative pilot-scale project. Implementation will involve development by the EA of an operational plan for agriculture and natural resources, while preparation of subprojects is to be coordinated principally by the Ministry of Agriculture, Forestry and Fisheries, the Ministry of Rural Development, the Ministry of Commerce, and National Information and Communication Technology Development Authority. The EA will appoint a project manager for the TA and provide office facilities to the TA consultants. An interministerial TA coordinating committee, chaired by the secretary-general of

SNEC, and comprising technical personnel designated by relevant ministries and departments, will be established to act as a direct counterpart group for the TA, provide policy and technical guidance for the TA, and facilitate resolution of outstanding TA implementation issues. Representatives of the target provinces will participate, as required. SNEC will also ensure interministerial coordination with the relevant agencies of the Government, including the Ministry of Economy and Finance, council for agricultural and rural development, the Ministry of Industry, Mines and Energy, the Ministry of Land Management, Urban Planning and Construction, the Ministry of Environment, the Ministry of Water Resources and Meteorology, the Ministry of Education, Youth and Sports, the Ministry of Health, the Ministry of Interior, the Ministry of Tourism, the Ministry of Women's and Veterans' Affairs, and the Ministry of Posts and Telecommunications.

14. The TA will be implemented over a period of 9 months, beginning in January 2008 and ending in September 2008. The TA will provide 26 person-months of consulting services—20 person-months of international and 6 person-months of national consultants. IFAD will provide 6 person-months equivalent services of an international social development specialist, a resource management specialist, and an institutional development specialist for the TA. ADB will engage individual consultants with core expertise in (i) agricultural economics and marketing; (ii) biosecurity and environmental and public health assessment; and (iii) ICT for rural development. The consultants will be engaged in accordance with the *Guidelines on the Use of Consultants* (2007, as amended from time to time). Unallocated budget may be used for additional inputs from existing experts or from new experts in areas such as social development, gender issues, involuntary resettlement, or others to be determined during the TA implementation. The international agricultural economist and marketing specialist will lead the TA consultant team. The team leader will participate in the fact-finding mission for the ensuing project. Additional inputs will be drawn in from national experts conducting the special studies. The team leader will contract out necessary studies and assessments to national individuals or firms, and purchase the necessary office equipment in accordance with ADB's *Procurement Guidelines* (2007, as amended from time to time). Equipment procured under the TA will be handed over to the Government upon TA completion. The proposed terms of reference for the consulting services are in Appendix 4.

15. The TA will organize stakeholder workshops to disseminate the TA outputs, obtain feedback and reviews, refine the project proposal, and ensure close liaison with key stakeholders at the national, provincial, and local levels. Tripartite review meetings involving the Government, the TA consultant team, and ADB will be organized at least three times at critical milestone events. The consultant will prepare (i) a TA inception report, including a detailed work program, to be submitted within 3 weeks of the start of the TA, and to be discussed at the initial tripartite review meeting; (ii) an interim report to present preliminary findings based on the interim results, to be submitted by the end of the fourth month of the TA, and to be discussed at the interim tripartite review meeting; (iii) a draft final report 2 months before TA completion, to be discussed at national- and provincial-level workshops, and the final tripartite review meeting; and (iv) a final report incorporating all outputs upon TA completion. Key outputs of the TA will be translated into Cambodian as required.

IV. THE PRESIDENT'S DECISION

16. The President, acting under the authority delegated by the Board, has approved (i) ADB administering a portion of technical assistance not exceeding the equivalent of \$300,000 to be financed on a grant basis by the Government of Finland, and (ii) ADB providing the balance not exceeding the equivalent of \$200,000 on a grant basis to the Government of Cambodia for preparing the Tonle Sap Poverty Reduction and Smallholder Development Project, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Impact Enhanced productivity and income growth of rural households in the Tonle Sap Basin</p>	<ul style="list-style-type: none"> • Household income from farm and nonfarm sources combined increases doubles within 5 years after project implementation • By the end of project implementation, export growth is accelerated at twice the rate of GDP growth projected at 5-7% over medium term, and new products diversify export base • Quality and safety of country's agricultural exports improved • Farmers and traders in the project area are better connected to markets and information through application of rural ICT • 50% increase in the participation of women and ethnic groups in farm and nonfarm activities, and export and tourist markets by the end of project implementation 	<ul style="list-style-type: none"> • Database and socioeconomic survey reports by National Institute of Statistics • Compilation of reports and statistics by SNEC, MAFF and other concerned agencies • Post project surveys and impact evaluation reports • Annual Provincial statistical records • Commune council assessment • ADB review missions and reports 	<p>Assumptions</p> <ul style="list-style-type: none"> • No major political, economic, or natural disaster shocks during project implementation <p>Risks</p> <ul style="list-style-type: none"> • Slowdown in policy and institutional reforms • Slow progress in implementation of complementary projects, especially transport and power
<p>Outcome Agreed-upon design of the resulting project</p>	<ul style="list-style-type: none"> • An appropriate project proposal together with feasibility level design of subprojects prepared and agreed upon for possible ADB financing within eight months 	<ul style="list-style-type: none"> • Approved feasibility study report for selected subprojects • Signed MOU between ADB and the Government 	<p>Assumptions</p> <ul style="list-style-type: none"> • Government prioritizes agricultural and rural development, and continues to promote the decentralization and democratization processes. • Government provides counterpart support

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
			<p>Risks</p> <ul style="list-style-type: none"> Powerful interests continue land grabbing or resource monopolization.
<p>Outputs</p> <p>1. Surveys, special studies, and assessments</p> <p>1.1 Agricultural technology assessment, and socioeconomic and marketing studies</p> <p>1.2 Factor productivity analysis</p> <p>1.3 Need assessment for biosecurity institutional capacity, training and infrastructure</p> <p>1.4 Assessment of product and financial markets for key products, analysis of value chains for smallholders</p> <p>1.5 Assessment of rural ICT application potential, and recommendations for public-private-community partnership in rural ICT</p>	<ul style="list-style-type: none"> All surveys, assessment and participatory data gathering completed by the end of 4th month, and its results, and recommendations presented in English and Khmer in stakeholder meetings and approved in workshop at the end of 6th month 	<ul style="list-style-type: none"> Approved inception report TA progress report Survey and assessment reports Recommendations for public-private-community partnership in rural ICT 	<p>Assumptions</p> <ul style="list-style-type: none"> Households living in the target communes willingly participate in the key informant surveys, PRA, and focus-group discussions. Local government and commune councils support the studies. <p>Risks</p> <ul style="list-style-type: none"> Potential target areas for the ensuing project become physically inaccessible during survey period, due to natural calamities (e.g., flood)
<p>2. Review of sector performance and needs</p> <p>2.1 sector performance and need assessment</p> <p>2.2 social and environmental analysis</p>	<ul style="list-style-type: none"> Performance and need assessment for the project areas completed, and subprojects targeted to specific sector outcome and/or beneficiary identified by the end of 4th month 	<ul style="list-style-type: none"> Benefit assessment and poverty impact report Approved GAP Environmental impact assessment (EIA) reports 	<p>Assumptions</p> <ul style="list-style-type: none"> Framework for selection and preparation of subprojects is adopted by the concerned ministries and subnational authorities. Socioeconomic

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
2.3 identification of subprojects	<ul style="list-style-type: none"> • Target communes selected in accordance with the criteria agreed upon by ADB and the Supreme National Economic Council and potential implementing agencies, and approved by the TA Coordination Committee, by the end of the 5th month • Selection of subprojects confirmed in public meetings and workshops in target communes by the end of 6th month 	<ul style="list-style-type: none"> • Minutes of coordination committee meeting • TA consultant's midterm report and records of public meetings • Workshop reports 	<p>surveys confirm that investment in improving factor productivity, biosecurity, rural ICT, and market access will increase household production and income in the target areas.</p> <p>Risks</p> <ul style="list-style-type: none"> • Powerful groups within the target communes, districts, or provinces hijack the selection process. • The private sector provides too little cooperation.
3. Feasibility study of selected subprojects	<ul style="list-style-type: none"> • Feasibility study report, including suitable investments and activities to be supported under the ensuing project, completed by the end of the 8th month, and approved by the Government and ADB • Approved final report by end of 9th month 	<ul style="list-style-type: none"> • Feasibility study report • Financial and economic cost benefit analysis of subprojects • Environmental impact assessment • Final report 	<p>Assumption</p> <ul style="list-style-type: none"> • Recommended subprojects are endorsed at all levels without delay. <p>Risks</p> <ul style="list-style-type: none"> • Institutional and financial inadequacy jeopardizes the Government's commitment.
Activities with Milestones			Inputs
<p>1.1 Analyze technology and production factors in agriculture and rural development, and identify growth factors for development of smallholders by 4th month</p> <p>1.2 Examine all aspects of market, national and international links, and supply and value chains for agricultural products and commodities by 4th month</p> <p>1.3 Review all technical and institutional aspects of biosecure agriculture with a particular emphasis on food safety and quality control, identify gaps to be filled for quality improvements and compliance with safety standards for agricultural crops and agroproducts by 4th month</p>			<p>ADB: \$200,000</p> <ul style="list-style-type: none"> • Consulting Services: 6 person-months: \$152,000 • Equipment: \$5,000 • Stakeholders meetings, PRA, workshops and seminars: \$28,000 • Miscellaneous: \$3,000

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>1.4 Assess the current state of ICT application in agriculture and rural development, and develop an action plan by 4th month</p> <p>1.5 Assess rural financial services in the country including the project area by 4th month</p> <p>1.6 Assess institutional, environmental, public-health, and social risks, and formulate measures to ensure adequate safeguards by 4th month</p> <p>1.7 Make arrangements for the TA outputs to be regularly discussed among key stakeholders, including the relevant government agencies, provincial governments, farmer groups, universities, private enterprises, external funding agencies, and civil society organizations in consultative workshops and seminars organized in different regions and selected provinces in the country to obtain appropriate feedback and disseminate TA findings by 6th month</p> <p>2.1 Assess the overall state of the agricultural economy and rural development in Cambodia by 4th month</p> <p>2.2 Review performance and lessons learned from the past and ongoing projects of ADB and other external funding agencies in the project area by 4th month</p> <p>2.3 Assess the agriculture and water sector in the project area by 4th month</p> <p>2.4 Undertake an analysis of poverty and alternative livelihood opportunities in the project area by 4th month</p> <p>2.5 Examine the potentials of and constraints to smallholders and agribusiness development by 4th month</p> <p>2.6 Carry out gender analysis to prepare a gender action plan by 4th month</p> <p>2.7 Prepare an environmental profile of the project area including resource degradation, pollution and loss of biodiversity by 4th month</p> <p>2.8 Formulate sector and subsector road maps delineating actions over short, medium and long term to promote sustainable and diversified agriculture and rural development with focus on smallholders by 6th month</p> <p>2.9 Analyze the current state of participatory institutions and processes and recommend measures to secure the partnership of the community stakeholders, civil society organizations, private agribusiness and tourism industry, government agencies and development partners in the Tonle Sap Basin in order to deepen the poverty impact of the ensuing project by 6th month</p> <p>2.10 Examine the performance and capacity of the relevant institutions and staff to be involved in all activities of the ensuing project at central and local levels, and propose effective measures for their capacity strengthening by 6th month</p> <p>2.11 Develop consensus among key stakeholders on the proposed project design and on necessary policy and institutional measures for effective project implementation by involving a wide range of key stakeholders at critical milestones of the TA by 6th month</p> <p>3.1 Prepare a detailed investment project proposal together with subprojects</p>			<ul style="list-style-type: none"> • Translation and interpretation: \$2,000 • Contingencies: \$10,000 <p>Government of Finland: \$300,000</p> <ul style="list-style-type: none"> • Consulting services: international (8 person-months) and national (6 person-months): \$168,500 • Special studies: \$50,000 • Miscellaneous: \$6,000 • Translation and interpretation: \$5,500 • Unallocated: \$ 40,000 • Contingencies: \$30,000 <p>International Fund for Agricultural Development (IFAD): \$150,000</p> <ul style="list-style-type: none"> • Consulting services: 6 person-months: \$147,000 • Contingencies: \$3,000 <p>Government of Cambodia: \$75,000</p> <ul style="list-style-type: none"> • Office accommodation and transport: \$30,000 • Remuneration and per diem of counterpart staff: \$ 20,000 • Meetings and seminars: \$15,000 • Others: \$10,000

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
design by 8 th month 3.2 Assess the benefits of the proposed project on the agricultural productivity employment, external earnings, role of women, livelihood of ethnic minority groups, environment and public health by 8 th month 3.3 Estimate financial and economic costs and benefits for subprojects by 8 th month			

ADB = Asian Development Bank, EIA = environmental impact assessment, GAP = gender action plan, GDP = gross domestic product, ICT = information and community technology, MAFF = Ministry of Agriculture, Forest, and Fisheries, MOU = memorandum of understanding, PRA = participatory rural appraisal, RF = resettlement framework, RP = resettlement plan, SNEC = Supreme National Economic Council, TA = technical assistance.
 Source: Asian Development Bank.

INITIAL POVERTY AND SOCIAL ANALYSIS

Country/Project Title:	Cambodia: Tonle Sap Poverty Reduction and Smallholder Development Project		
Lending/Financing Modality:	Project	Department/ Division:	Southeast Asia Department/Agriculture, Environment and Natural Resources

I. POVERTY ISSUES

A. Linkages to the National Poverty Reduction Strategy and Country Partnership Strategy

In Cambodia, the agriculture sector accounts for about 34% of the country's gross domestic product, and about 70% of the labor force. Although the sector's shares are expected to decrease due to the more rapid growth of garment, construction and tourism sectors, the Government's Rectangular Strategy for Growth, Employment, Equity, and Efficiency expects agriculture to be a driving force in accelerating economic growth and reducing poverty, especially in rural areas. The Government's poverty reduction strategy paper also emphasizes the role of agriculture and rural development in poverty reduction. Rapid agricultural transformation is the only way out of extreme poverty in the Tonle Sap Basin provinces. The proposed project will help reduce poverty in the project area, which is the home of more than a third of the country's population. Innovative ideas for poverty reduction will be tested in pilot schemes for possible replication in other parts of the country.

B. Targeting Classification

1. Select the targeting classification of the project:

General Intervention Individual or Household (TI-H); Geographic (TI-G); Non-Income MDGs (TI-M1, M2, etc.)

2. Explain the basis for the targeting classification:

C. Poverty Analysis

1. If the project is classified as TI-H, or if it is policy-based, what type of poverty impact analysis is needed?

A detailed analysis is required on the social and poverty impact of the ensuing loan project on the potential project beneficiaries, in accordance with the Asian Development Bank's relevant guidelines on poverty and social development, and standard practices. The analysis should include, as baseline information, socioeconomic profiles of potential beneficiaries by income, poverty levels, gender, ethnicity, and other factors. It should also assess their roles and needs in relation to the ensuing loan project. Available studies and reports on the poverty situation in Cambodia will be reviewed and complemented by participatory rural appraisals to be carried out in the potential project provinces.

2. What resources are allocated in the PPTA/due diligence? For PPTA: Six international consultants, including a social development specialist, a resource management specialist, a biosecurity, environment, and public health specialist, a specialist in ICT for rural development, a financial and economic analyses specialist, and an agricultural economics and marketing specialist.

3. If GI, is there any opportunity for pro-poor design (e.g., social inclusion subcomponents, cross subsidy, pro-poor governance, and pro-poor growth)?

II. SOCIAL DEVELOPMENT ISSUES

A. Initial Social Analysis

Based on existing information:

1. Who are the potential primary beneficiaries of the project? How do the poor and the socially excluded benefit from the project? Smallholder farmers, fishers, livestock operators, rural women involved in farm, off-farm, and nonfarm production, processing, trading, and service-related activities are the potential beneficiaries of the project. Poor ethnic minorities and socially excluded groups will gain improved access to inputs, technology, and markets, together with enhanced employment opportunities.

2. What are the potential needs of beneficiaries in relation to the proposed project?

The beneficiaries would need (i) improved land, water, labor, and capital productivity; (ii) access to improved technology and markets; and (iii) access to ICT. Beneficiaries producing and processing for supply to upscale, tourist, and international markets would need knowledge and extension services for compliance with food safety and quality requirements

3. What are the potential constraints in accessing the proposed benefits and services, and how will the project address them?

a. Increased Factor Productivity. Inadequate facilities, and lack of extension knowledge and information-delivery capacity at the provincial and commune level, are major hindrances. The project will overcome these obstacles through provision of extension and training services on improved cropping pattern, crop rotation, and farming systems, focusing on environmental sustainability and market demands.

b. Biosecure Agriculture for Smallholders. The absence of a functional national food safety authority, and a lack of training and information programs, are major constraints. The project will strengthen the national food safety authority, and provide access to improved information, including awareness and training throughout the project area.

c. Improved Access to Products and Financial Markets. Lack of outreach, credit management, and capital base and savings mobilization are the main constraints in the financial markets. Obstacles preventing access to product markets include poor communications, and poor processing and storage infrastructure in some of the areas covered by the project. The project will support improvements of such infrastructure as farm-to-market roads and community-based storage facilities.

d. Development of Rural ICT. A lack of backbone infrastructure for ICT and unreliable power supply can become a constraint to access to and application of ICT by smallholders and rural households. The cooperation with private sector on satellite networks will be promoted through the project.

B. Consultation and Participation

1. Indicate the potential initial stakeholders.

Ministry of Agriculture, Forestry and Fisheries, Ministry of Rural Development, National Information and Communication Technology Development Authority, Supreme National Economic Council, provincial authorities, commune councils, civil society and nongovernment organizations, farmers, traders, processors, microfinance institutions are initial stakeholders in the project.

2. What type of consultation and participation (C&P) is required during the PPTA or project processing (e.g., workshops, community mobilization, involvement of nongovernmental organizations and community-based organizations, etc.)?

National and provincial stakeholder consultations will be carried out at critical milestones during the implementation of the technical assistance (TA) for the sector analysis, formulation of the project proposal, and assessment of project impact and risks. In consultation with the TA Executing Agency, the TA will ensure participation of the relevant government agencies, provincial governments, farmer groups, EM groups, other external funding agencies, private enterprises, and civil society organizations. A specific strategy for stakeholder participation will be worked out at TA inception as part of the TA work program.

3. What level of participation is envisaged for project design?

Information sharing Consultation Collaborative decision making Empowerment

4. Will a C&P plan be prepared? Yes No Please explain.

C. Gender and Development

1. What are the key gender issues in the sector/subsector that are likely to be relevant to this project/program?
 Basic hygiene, health standards, inequality in access to credit, technology and markets, and training for post-harvest processing are some of the key issues for women in the sector. In accordance with the Government's approved strategies and stated commitments, the ensuing loan project will incorporate specific measures or an action plan to ensure women's access to agricultural technology, information, and market facilities.

2. Does the proposed project/program have the potential to promote gender equality and/or women's empowerment by improving women's access to and use of opportunities, services, resources, assets, and participation in decision making? Yes No Please explain.
 The improved access to technology, information, and market will enhance women's participation in production, processing, and marketing.

3. Could the proposed project have an adverse impact on women and/or girls, or widen gender inequality?
 Yes No The ICT, biosecurity, and improved market access are new drivers for improving productivity in the rural areas. If women have less access to these project benefits, and if training and infrastructure are not designed to be women-friendly, the inequality can widen. For example, women may not participate in training programs due to distance and other obligations that differ from the men's. The project will design targeted activities for women and/or girls to benefit from ICT and extension services.

III. SOCIAL SAFEGUARD ISSUES AND OTHER SOCIAL RISKS

Issue	Nature of Social Issue	Significant/Limited/ No Impact/Not Known	Plan or Other Action Required
Involuntary Resettlement	Potential farm land acquisition will be assessed by PPTA.	Not known.	<input type="checkbox"/> Full Plan <input type="checkbox"/> Short Plan <input type="checkbox"/> Resettlement Framework <input type="checkbox"/> No Action <input checked="" type="checkbox"/> Uncertain Based on findings of PPTA, appropriate action will be undertaken.
Indigenous Peoples	Not known.	The PPTA will ensure that indigenous peoples participate in, and benefit more, from the project.	<input type="checkbox"/> Plan <input checked="" type="checkbox"/> Other Action <input type="checkbox"/> Indigenous Peoples Framework <input type="checkbox"/> No Action <input type="checkbox"/> Uncertain Specific activities will be included in the project components or subprojects to ensure maximum benefits to indigenous peoples.
Labor <input checked="" type="checkbox"/> Employment Opportunities <input type="checkbox"/> Labor Retrenchment <input type="checkbox"/> Core Labor Standards	Productivity increases and market expansion will lead to more employment opportunities.		<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain
Affordability			<input type="checkbox"/> Action <input type="checkbox"/> No Action <input checked="" type="checkbox"/> Uncertain

<p>Other Risks and/or Vulnerabilities <input checked="" type="checkbox"/> HIV/AIDS <input checked="" type="checkbox"/> Human Trafficking <input checked="" type="checkbox"/> Others (conflict, political instability, etc.), please specify – User group conflict</p>	<p>Exposure to information, markets, and ICT will create more awareness of risk factors. Positive messages about these factors should be included in ICT contents.</p>		<p><input type="checkbox"/> Plan <input checked="" type="checkbox"/> Other Action <input type="checkbox"/> No Action <input type="checkbox"/> Uncertain</p>
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IV. PPTA/DUE DILIGENCE RESOURCE REQUIREMENT
<p>1. Do the TOR for the PPTA (or other due diligence) include poverty, social and gender analysis and the relevant specialist/s? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, please explain why.</p> <p>2. Are resources (consultants, survey budget, and workshop) allocated for conducting poverty, social and/or gender analysis, and C&P during the PPTA/due diligence? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, please explain why.</p>

EM = ethnic minority, ICT = information and communication technology, PPTA = project preparatory technical assistance, TA = technical assistance.
 Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN

(\$'000)

Item	Total Cost
A. Asian Development Bank Financing^a	
1. Consultants (international)	
a. Remuneration and per diem	133.31
b. International and local travel	14.00
c. Reports and communications	5.00
2. Equipment (computers, printers, photocopiers)	5.00
3. Stakeholder meetings, PRA, workshops and seminars	28.50
4. Miscellaneous administration and support costs	3.00
5. Translation and interpretation	2.00
6. Contingencies	9.19
Subtotal (A)	200.00
B. Government of Finland Financing^b	
1. Consultants	
a. Remuneration and per diem	
(i) International consultants	126.23
(ii) National consultants	18.60
b. International and Local travel	23.65
2. Special studies (5 studies; local assistance and field work)	50.00
3. Miscellaneous administration and support costs	6.00
4. Translation and interpretation	5.52
5. Unallocated	40.00
6. Contingencies	30.00
Subtotal (B)	300.00
C. IFAD Financing^c	
1. Consultants (international)	
a. Remuneration and per diem	126.24
b. International and local travel	19.50
c. Reports and communications	1.00
2. Contingencies	3.26
Subtotal (C)	150.00
D. Government Financing^d	
1. Office accommodation and transport	30.00
2. Remuneration and per diem of counterpart staff	20.00
3. Meeting and seminar facilities	15.00
4. Other	10.00
Subtotal (D)	75.00
Total (A+B+C+D)	725.00

IFAD = International Fund for Agricultural Development, PRA = participatory rural appraisal.

^a Funded by ADB's TA funding program.

^b Administered by ADB. This amount also includes ADB's administration fee, audit cost, bank charges and provision for foreign exchange fluctuations (if any) to the extent that these items are not covered by the interest and investment income earned on this grant, or any additional grant by the Government of Finland.

^c Parallel financing covering expenses of three international consultants: resource management specialist, institutional development specialist, and social development specialist.

^d In-kind contribution.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. General Requirements

1. The following consulting services will be required for the proposed technical assistance (TA). The international agricultural economics and marketing specialist will lead the consultant team. The consultants should have adequate working experience in Southeast Asia, preferably in Cambodia. The international consultants should have (i) at least a master's degree or equivalent qualification, (ii) adequate relevant working experience in preparing projects for multilateral financial institutions in Southeast Asia, (iii) sound knowledge of and practical experience in relevant fields, and (iv) strong interpersonal and communication skills. The national consultants should have (i) a bachelor's degree or equivalent qualification, (ii) extensive knowledge and experience in the relevant fields in Cambodia, (iii) experience in working with government institutions and international consultants, and (iv) be fluent in written and spoken English.

Consultant Expertise (Person-months)			
Expertise	International	National	Total
1. Agricultural economics and marketing	6	6	12
2. Institutional development	2	0	2
3. Social development	2	0	2
4. Biosecurity, environmental and public health	4	0	4
5. Resource management	2	0	2
6. Information and communication technology (ICT) for rural development	2	0	2
7. Unallocated	2	0	2
Total	20	6	26

ICT = information communication and technology.

Source: Asian Development Bank estimates.

B. Duties and Responsibilities for Consultants

1. **Agricultural Economics and Marketing Specialist** (international, 6 person-months; and national, 6 person-months)

2. The international consultant, with support of the national consultant, will (i) lead the TA consultant team in formulating the detailed project design; (ii) develop consensus among key stakeholders on the proposed project design and on necessary policy and institutional measures for effective project implementation, by involving a wide range of key stakeholders at critical milestones of the TA, obtaining appropriate feedback, and disseminating TA findings; (iii) fulfill the requirements of all analyses and surveys, including economic and financial analyses; (iv) ensure that all important aspects of the ensuing loan project are fully assessed in terms of technical, environmental, social, financial, and economic viability; and (v) be responsible for timely submission of all reports. Specifically, the consultant will

- (i) conduct economic and sector analysis, compile data and reference materials, coordinate with ADB, donor partners, and the Government, and undertake project design;
- (ii) examine all aspects of market, national, and international links, supply and value chains, contract arrangements, transaction costs and returns, regulatory and

- institutional frameworks, infrastructure, transport, storage, processing, quality control, and other related issues, while bringing out the comparative and competitive advantage of Cambodian exports and the potential of niche products and markets;
- (iii) examine the past, ongoing, and planned loan and TA projects in the agriculture sector financed by ADB and other external funding agencies, identify lessons learned and findings to be considered in formulating the ensuing loan project, and ensure complementarities of the ensuing loan project with the ongoing and planned activities of ADB and other external funding agencies;
 - (iv) conduct an in-depth assessment of the agriculture sector, including latest data and information on the cultivated and irrigated area of major food and cash crops, production, yield, farming systems, and resource potentials;
 - (v) assess rural financial services in the country, including the project area, and review the rural financial market in the project area, assess demand and supply of credit, and recommend how project intervention could improve access of rural households to credit for farm and nonfarm activities, and how borrowers could utilize credit more effectively;
 - (vi) assess, in collaboration with other consultants, the current situation of marketing of agricultural crops and agroproducts, and the forward and backward linkages of such products, including contract farming, and investigate recent market trends, price movements, and demand projections in domestic and international markets to identify comparative and competitive advantages of Cambodian products;
 - (vii) examine the supply chains of agricultural crops and agroproducts, and identify key constraints to effective market transactions by tracing various marketing channels;
 - (viii) assess investment opportunities for, and constraints on, private agribusinesses in Cambodia, taking into consideration access to domestic and international markets, supportive market infrastructure, use of trademarks, and incentive schemes;
 - (ix) examine the availability of, and need for, supportive market infrastructure in the potential project provinces and major market centers, including collection, storage, and transport facilities, and propose measures for reducing marketing costs, and improving product quality and safety;
 - (x) assess the existing market information and intelligence systems, including the use of mass media, and recommend specific measures to improve the systems for more effective use and dissemination of accurate and updated market information;
 - (xi) assess the performance, capacity, and bargaining powers of farmers in effective marketing of agricultural crops and agroproducts in the potential project provinces, and identify measures to improve their capacity for marketing, including the formation of product groups and associations;
 - (xii) assess the potential for developing small- or medium-sized enterprises (SMEs) with strong trade linkages;
 - (xiii) examine the possibility to strengthen the post-harvest operations and product development of SMEs through support for market-driven product development;
 - (xiv) formulate an action plan addressing post-harvest technology, the market information system, supply and constraints, infrastructure, national, regional and international links, farm-to-market roads, market development, off-farm activities, and efficacy of land, labor, and capital markets;
 - (xv) examine, evaluate and make recommendations on alternative investment options to reduce poverty and promote smallholder development in the Tonle Sap Basin

provinces of Siem Reap, Kampong Thom, and Kampong Cham, based on farm and nonfarm rural activities, market development and diversification, improved quality and safety of agricultural crops and agroproducts, and increased product competitiveness;

- (xvi) determine specific objectives and scope for the ensuing loan project, and work with the TA consultant team in formulating a detailed investment project proposal, together with subproject design and economic and financial analysis, that can be considered for ADB financing, based on implementation and funding arrangements acceptable to the Government and ADB; and
- (xvii) participate in the fact-finding mission for the ensuing project.

2. Resource Management Specialist (international, 2 person-months)

3. This international consultant will be responsible for assessing of land, water, forest, fishery and livestock resources in project area, their utilization, input supply, quality, and application, and the environmental impact of input use. More specifically, the consultants will

- (i) assess the state of the agriculture and natural resources sector in the project area, with specific focus on problems and constraints affecting poverty levels and the wellbeing of smallholder producers, and examine the prospects for rural transformation in the area through improved resource management;
- (ii) assess the land, water, forest, fishery, and livestock resource bases, and how they are being used, suggest measures to improve utilization, and identify suitable cropping patterns, especially those with commercial and export potential;
- (iii) study the input and chemical supply chain from production and import to distribution and field application, as well as institutional arrangements, stakeholders, input quality, operation of input markets, and environmental impact of input use and mitigation measures, if needed;
- (iv) recommend measures to promote environmental sustainability in the following activities: (a) the use of fertilizers, pesticides, and other chemicals; (b) integrated pest management; (c) area-specific soil testing and treatment; (d) planting; (e) grafting; (f) harvesting; (g) storing, packing, and transport; and (h) organic farming;
- (v) formulate sector and subsector road maps for action over the short, medium, and long terms to promote sustainable, diversified agriculture and rural development, with smallholders as the centerpiece;
- (vi) examine the potentials of, and constraints on, sustainable agribusiness development in crop, livestock, and fishery by smallholders and poor families;
- (vii) present typical cropping patterns and budgets for the selected priority crops to be considered for the ensuing loan project;
- (viii) incorporate the issues of women, ethnic minorities, and indigenous people into the design of components and subprojects; and
- (ix) assist the team leader in consolidating the findings of various studies.

3. Institutional Development Specialist (international, 2 person-months)

4. The international institutional development specialist will be responsible for assessing the capacities of all relevant public, private, and civil society institutions countrywide and, more particularly, within the project area, and for proposing means to strengthen them. Specifically, the consultants will

- (i) examine the performance and capacity of the relevant institutions and staff involved in all activities of the proposed project at central and local levels, and propose effective strengthening measures;
- (ii) assess existing public and private institutional arrangements for implementing and disseminating good agricultural practices in the production of priority commercial crops, and make recommendations for potential project support;
- (iii) assess the current situation of seed and seedling production, and the capacity of private and public nurseries, and incorporate effective measures for improving the availability of planting materials suitable for commercial sale and processing;
- (iv) assess the capacity and limitations of the existing agricultural research, extension, and market information systems in the country and in potential project provinces, and recommend measures to improve them, with particular emphasis on post-harvest research—reduction in post-harvest losses, and identification of low-cost post-harvest technologies—and on product grading and certification;
- (v) assess the existing capacity of public extension services for commercial crop production and marketing, and product storing, processing, and packaging, and recommend measures to strengthen the capacity of grassroots level agricultural extension services for improving the quality and safety of agricultural crops and agroproducts;
- (vi) recommend steps institutionalize research–extension–farmer linkages, and to make research client-oriented, and extensions demand-driven;
- (vii) assess the potential for developing nongovernmental organization and private-sector extension services;
- (viii) analyze the current state of participatory institutions and processes, and recommend measures to secure the partnership of the community stakeholders, civil society organizations, the private agribusiness and tourism industries, government agencies, and development partners in the project, and thereby deepen the poverty impact of the Tonle Sap Initiative, while preserving the resource base that is a heritage for the next generation;
- (ix) incorporate issues of women, ethnic minorities, and indigenous people into the design of components and subprojects; and
- (x) assist the team leader in consolidating the findings of various studies.

4. Social Development Specialist (international, 2 person-months)

5. Social development specialists will be responsible in general for assessing the poverty and social impacts of the project and proposing measures to mitigate potential negative fallout. More specifically, the consultants will

- (i) undertake an analysis of poverty and alternative livelihood opportunities in the project area;
- (ii) carry out gender analysis to prepare a gender action plan;
- (iii) prepare a gender action plan;
- (iv) prepare a consultation and participation plan;
- (v) conduct the detailed social and poverty analysis, including assessments of social safeguards related to the ensuing loan project, in accordance with ADB's *Handbook for Poverty and Social Analysis* (2001), *Handbook for Incorporation of Social Dimensions in Projects* (1994), *Gender Checklist: Agriculture* (2000), *Policy on Indigenous Peoples* (1998), and other relevant social policies and

- guidelines of ADB;
- (vi) examine detailed socioeconomic profiles of potential beneficiaries in the proposed project provinces by income and poverty levels, gender, ethnicity, and other factors, and assess their roles, needs, affordability, and the absorptive capacity expected in relation to the ensuing loan project;
- (vii) assess the current issues related to gender, ethnic minority groups, rural poverty, and impact of food safety issues on the poor in the potential project provinces, and formulate action plans to mainstream these issues, including an indigenous peoples development plan, and a gender action plan for the ensuing loan project;
- (viii) conduct an assessment of indigenous practices in agriculture, livestock production, and fishery, in terms of sustainability and ecological balance;
- (ix) prepare an ethnic minority development plan;
- (x) establish benchmark information and design an appropriate system for monitoring and evaluating the program;
- (xi) incorporate issues of women, ethnic minorities, and indigenous people into the design of components and subprojects; and
- (xii) assist the team leader in consolidating the findings of various studies.

5. Biosecurity, Environment, and Public Health Specialist (international, 4 person-months)

6. This international consultant will (i) assess the state of biosecurity in Cambodian agriculture and provide measures to overcome shortcomings, from the perspective of international public and private standards and norms; (ii) assess the environmental and public health impact of the project and subprojects; and (iii) review all technical and institutional aspects of biosecure agriculture, with a particular emphasis on food safety and quality control, and identify gaps to be filled for quality improvements and safety compliance. Specifically, the consultants will

- (i) prepare an environmental profile of the project area, including resource degradation, pollution, and loss of biodiversity;
- (ii) prepare an assessment of the status of public health in the project area, and the potential impact of the proposed project activities;
- (iii) assess how the transformation towards biosecurity is likely to affect the livelihood of the small farmers, and food security and poverty;
- (iv) examine potential environmental and public health issues related to the ensuing loan project, based on the proposed project design, including occupational health risks, food safety, and possible hazardous wastes and byproducts from processing factories;
- (v) provide a detailed overview and assessment of public health institutions in project area and regulations related to food safety, and recommend measures for improvements in the relevant institutional linkages;
- (vi) prepare an initial environmental examination report and summary for the project, in accordance with ADB's *Environmental Assessment Guidelines* (2003) and the Government's environmental regulations;
- (vii) propose appropriate measures to enhance environmental benefits or minimize the likely adverse impact of the ensuing loan project on environment and public health, and incorporate such measures into the project design;
- (viii) assess the potential environmental impact of various sample subprojects that may be financed under credit lines for agro-based SMEs, in accordance with

ADB's Guidelines for Environmental Assessment of Financial Intermediation Loans and Equity Investments (2003);

- (ix) evaluate the environmental assessment, monitoring mechanisms, and capacity of the project Executing Agency and the financial intermediaries proposed for the ensuing loan project, identify medium- to long-term environmental and public health concerns in agriculture and agribusiness, with reference to ADB's country environment strategy for Cambodia, and recommend effective measures to address such concerns;
- (x) examine how to address concerns of environmental sustainability, biodiversity, and biosafety—the three wheels of biosecure agriculture—and identify what policy configuration will facilitate transformation towards biosecurity and simultaneously ensure food security and equity;
- (xi) review all technical and institutional aspects of biosecure agriculture, with a particular emphasis on food safety, quality control, and established international norms such as SPS measures, and identify gaps to be filled for quality improvements and compliance with safety standards of agricultural and agroproducts;
- (xii) examine the key opportunities and issues related to quality improvements and food safety of agricultural and agroproducts, including relevant government policies and regulations, and draw lessons learned from national and international experiences, where appropriate;
- (xiii) determine what public investments and services are needed for the small farmers and the domestic food sector to match international food safety standards, technologies and practices for biosecure agriculture;
- (xiv) Identify what incentives and support can be offered to low-income producers, processors, and sellers to help them comply with global food safety standards and regulations and adopt biosecure practices;
- (xv) examine what institutional adjustments are needed to foster the collaboration necessary among government ministries, including those of health, agriculture, environment, and trade, to develop an incentive-compatible policy framework for biosecure agriculture;
- (xvi) determine the relative roles of the public and private sectors in restructuring the domestic food sector so that it becomes biosecure;
- (xvii) develop an action plan for the steps required to establish biosecure agriculture for Cambodia, identifying responsible authorities to provide effective leadership;
- (xviii) incorporate issues of women, ethnic minorities, and indigenous people into the design of components and subprojects; and
- (xix) assist the team leader in consolidating the findings of various studies.

6. ICT for Rural Development Specialist (international, 2 person-months)

7. The international information and communication technology (ICT) for rural development specialist will be responsible for assessing the potential of ICT application in Cambodia for rural and agricultural development, with special regard to productivity improvement, market development, and biosecurity. Specifically, the consultants will

- (i) assess the current state of ICT application in agriculture and rural development, and collect the best and the most innovative practices for using ICT to address gender issues and to empower women;
- (ii) review the quality and performance of Cambodia's ICT policy and regulatory

framework;

- (iii) conduct detailed case studies on innovative and successful rural ICT policies, strategies, guidelines, and regulatory frameworks, as well as technological, financing, and business models under public–private partnership for rural ICT projects in the provision of infrastructure and services;
- (iv) assess needs for ICT market information systems, infrastructure, capacity, education, skill and training, energy, networking, and develop an action plan;
- (v) examine various technological options—intranet, internet, and/or mobile technologies, as well as TV, radio, and satellite—for delivering the needed information services;
- (vi) develop criteria for selection of communities for pilot schemes, and instructors and end users for training;
- (vii) determine appropriate application of ICT during the pilot phase and potential areas for subsequent expansion;
- (viii) develop ownership, operation, management, and business model for a pilot ICT-for-rural-development module under public–private partnership;
- (ix) develop the program for an awareness and promotion campaign, forums, workshops, and training services related to ICT applications in the rural areas;
- (x) incorporate issues of women, ethnic minorities, and indigenous people into the design of components and subprojects; and
- (xi) assist the team leader in consolidating the findings of various studies.